

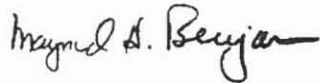
UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

Statutory Review of the System
For Regulating Rates and Classes
For Market Dominant Products

Docket No. RM2017-3

Pursuant to Order No. 3673, the Envelope Manufacturers Association submits a reference entitled the EMA Foundation Jobs and Mail Study to be used in the aforementioned case. This document is an update of previous studies provided to the Regulatory Commission. The Reference Document is attached to this cover letter.

Sincerely yours,

A handwritten signature in black ink, reading "Maynard H. Benjamin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Maynard H. Benjamin, CAE, FASAE
President & CEO



EMA FOUNDATION'S US MAILING INDUSTRY JOBS AND REVENUE STUDY 2015

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¹ The authors gratefully acknowledge the contributions of Alan Robinson, Direct Communications Group, to previous year's editions of the Mailing Industry Jobs and Revenue Study.

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EXECUTIVE SUMMARY

This study represents the EMA Foundation's fifth report measuring the economic scope and impact of the mailing industry on the United States economy. This study like the four that preceded it shows that the mailing industry touches every private and public sector of the economy. The breadth of the impact is not surprising. Even as access to high-speed internet and mobile data expands, mail remains a critical part of the infrastructure for communications among consumers, businesses, and government at all levels. In particular, the new technologies expand the demand for the parcel delivery services that the mailing industry provides.

This report contains the findings of the 2015 study of the economic contribution of the mailing industry to the United States economy. The study finds that in 2014, the most recent full year for which data are available, the industry employed almost seven and a half million individuals, down a modest 4.4% from the 7.8 million employed in 2011. Also in 2014, the mailing industry generated more than \$1.4 trillion in gross revenues for participating firms and industries, representing a further \$120 billion added to the US economy's gross output above the \$1.3 trillion reported for 2011 – an increase of almost 10%.

These millions of employed individuals and almost one and a half trillion dollars of output provide clear evidence that mail continues to be a powerful driver of the United States economy. And as described elsewhere in this report, 2014's jobs and revenues involve every sector of private industry, as well as every branch of the public sector, just as they did in 2011.

Table 1: US Mailing Industry Economic Impact - Jobs And Revenues

	EMPLOYMENT	REVENUES (\$ BILLIONS)
2014	7,486,826	\$1,429
2011	7,829,920	\$1,305
Difference	-343,094	\$123
% Change	-4.4%	9.5%

The significant extent of the industry's employment and revenue impacts reflects mail's long role as a highly effective artery of commerce and communication. Millions of individuals, private sector firms, government entities and non-profits use the mail to inform, advertise to, transact with, or distribute to citizens, stakeholders, clients or end customers. Moreover, the current study finds evidence suggesting mail has become more economically efficient since the previous study reported results for 2011. Even as use of high-speed internet and mobile data expands, mail remains an indispensable part of the national communications infrastructure. Indeed, these new technologies have increasingly generated demand for certain mail stream services, such as package delivery.

The 2015 Mailing Industry Jobs and Revenue Study's goals were to 1) total up the jobs and revenues contributed by the mailing industry's component sectors; and to 2) report the distribution of the industry's US totals among the nation's states and congressional districts. This memorandum identifies these component sectors, and documents changes relative to 2011.

All the study's findings derive from analysis of publicly available third-party sources of national economic data. For employment, the principal source is the US Bureau of Labor's Occupational Employment Survey for 2014. (For information on the OES program, see the Appendix to this report.) For revenues, we principally rely on several programs of the US Census Bureau, chiefly the US Economic Census, the US Annual Survey of Manufacturing, and its *Quarterly Financial Reports*. In addition, data for employment and revenues pertaining to direct mail activity are primarily taken from the US Direct Marketing Association's most recent *Power of Direct Marketing Report*, prepared on its behalf by the economic measurement firm IHS Global Insight.

All data sources and the procedures used to analyze them are described in the relevant sections that follow. To ensure comparability for trending data, the 2015 study closely follows the research methodology developed by previous editions of this study, with minor refinements to reflect changes in data sources or industry developments. The analytic approach is once again deliberately conservative. The study does not include measures often included in other impact studies, such as employee salaries, induced employment (employment resulting from local consumption sustained by

primary employee salaries), or taxes paid. More significantly, data necessary to estimate revenues for a key sector of the mail industry – users of transactional mail – has never been available for analysis. Thus, total 2014 revenues, like total revenues reported in previous studies, are significantly understated.

KEY FINDINGS FOR 2014

- The U.S. mailing industry total of 7.5 million jobs represents fully 6% of the nation's total civilian labor force.
- The U.S. mailing industry's contribution of \$1.4 trillion in sales revenue to the US economy in 2014 accounted for 4.6% of U.S. total output of \$31 trillion, which is the estimated total value of all US sales for that year.²
- Mailing industry revenue growth combined with declining employment points to growing industry productivity. Between 2011 and 2014, total mail industry revenues increased by \$123 billion, while it shed 343,000 jobs. Taking gross revenues per worker as our productivity yardstick, US mailing industry productivity rose from \$167,000 per employee in 2011 to \$191,000 per employee in 2014, a 14% increase.
- Mail stream users are much larger component of the mailing industry than is its "core" sector of mail delivery and mail input manufacturing firms. Core employment accounted for only 27% of total industry jobs. In terms of total revenues, it accounts for an even smaller share, at 21%. Of total industry jobs, the United States Postal Service (USPS) accounts for only 8%. This means the vast majority (over 90%) of mailing industry jobs are found in the private sector. Whether measured by jobs or revenues, the relative importance of users and providers have not changed much since 2011.
- The U.S. mailing industry continues to rank among America's major industries, gainsaying those who prophesied its demise due to competition from electronic media. As illustrated in Table 2 below, the mail industry's top-line revenues are fully 25% greater than those of the oil and natural gas industry and are only 7% less than those of the airline industry. By the same token, its employment levels compare favorably with the airline industry's 11.7 million jobs and the oil and natural gas industry's 9.3 million jobs.

Table 2: 2014 Economic Impacts of Major US Industries

	Employees	\$ Revenue
Mailing Industry	7.5 million	\$1.4 Trillion
Airline Industry ⁽¹⁾	11.7 million	\$1.5 Trillion
Oil and Natural Gas Industry ⁽²⁾	9.3 million	\$1.1 Trillion

Sources: 1. "Economic Impacts of Civil Aviation on the US Economy" FAA, 2014. "The Annual Economic Benefits of Oil and Gas Exploration and Production" The Perryman Group, 2014

MAILING INDUSTRY TRENDS SINCE 2011

Comparing overall mailing industry performance in 2014 with that of 2011 reveals that employment and revenue moved in opposite directions. Overall industry employment declined 4.4% while total revenues grew by 9%. While a full analysis of underlying reasons for these changes lies beyond the scope of this study, the mailing industry's seemingly paradoxical loss of employment coupled with increased revenue over the last three years involves two major trends that lie outside the industry itself: customers' continuing adoption of digital for communications where they once used mail, and the nation's continuing financial rebound after the Great Recession of 2008 – 2010.

² US Gross Output for 2014 is sourced from the US Bureau of Economic Analysis website (accessed October 18, 2015).

The impact of these two trends can be understood best by summarizing total gains and losses in employment and revenue within the principal economic sectors within the mailing industry: Mail stream delivery and input providers (Group A); together with the customers of the two main categories of mail products: users of transactional and correspondence mail (First Class Mail and its private sector analogs, Group B) and users of standard mail (advertising, printed matter, and package delivery dependent ecommerce - Group C.)

Employment: Individual Losses/Gains by Sector.

The industry's net loss of 343,000 jobs results from a gross loss of 429,000 employees in ten sub-sectors that was partially offset by gain of 79,000 among three employment gaining sub-sectors. This means five and half workers were lost in the declining sectors for every worker gained among the exceptions.

Table 3: Employment Gains (Losses) By Sector

Sub-Sector	Sub-Sector	2011	2014	Sector Gain (Loss)	Sector As % of Sub-total of Gross Gains (Losses)
A2	Private Sector Delivery (FedEx, UPS)	565,659	605,376	39,717	50.7%
A3	Delivery Suppliers	179,386	181,382	1,996	2.6%
C6	Electronic Shopping and Mail Order Houses	172,212	208,820	36,608	46.7%
	Sub-Total Gross Gains			78,321	100.0%
A1	Postal Service	648,350	617,254	-31,096	7.4%
A4	Paper, Printing, Printing Suppliers, Direct Mail Design	619,675	605,864	-13,811	3.3%
B1	Users of Transactional and Correspondence Mail	2,045,696	1,834,916	-210,780	50.0%
B2	Self Employed in Transactional/Correspondence Mail Occupations	289,500	249,989	-39,511	9.4%
C1	Jobs Generated to Support Catalogue Generated Sales	464,000	447,906	-16,094	3.8%
C2	Jobs Generated to Support Non-catalogue Direct Mail Generated Sales	2,241,000	2,192,452	-48,548	11.5%
C3	Jobs Generated to Support Direct Response Magazine Ad Sales	311,000	278,080	-32,920	7.8%
C4	Jobs Generated to Support Insert Advertising Sales	108,000	102,973	-5,027	1.2%
C5	Publishing of Periodicals /Books, Greeting Cards /Directories	116,776	105,173	-11,603	2.8%
C7	Employment supported by Ecommerce Sales by Brick & Mortar Retail	68,666	56,641	-12,025	2.9%
	Sub-Total: Gross Losses			-421,415	100.00%
	Total Net Gains (Losses)			-343,094	

As can be seen in the table, employment decline in the mail industry primarily reflects the first of the trends mentioned, namely the shift in customer communications from paper to digital. 2014 USPS total volumes were down 27% relative to 2007, and 8% relative to 2011. In terms of specific types of mail, in 2014, users placed 9 billion fewer transactional First Class Mail (FCM) pieces than 2011 (and 30 billion fewer pieces than in 2005); Standard Mail (primarily direct mail) volumes declined by 4 billion pieces since 2011, and over 20 billion since its 2007 peak.³ Similar trends can be seen among the private sector paper-based couriers. For example, FedEx's customers placed 7% and 4% fewer pieces for US domestic delivery during the same time periods.⁴

Thus user companies have been steadily reducing their engagement of internal employees and externally contracted staff needed so as to align with the decline in paper bills, statements, ads, and other correspondence they deposit into the mail stream over the last few years. Fully 60% of all jobs lost to the industry since 2011 were from among firms in Group B1 and B2, "Users of Transactional and Correspondence Mail." About another 25% of jobs disappeared from group C2 and C5, "Users of Standard Mail: Advertising" along with "Users of Periodical Mail" (primarily book and greeting card publishers.). Finally, with fewer workers using the mail, fewer are needed to produce and deliver it: 7% of the total gross reduction in jobs occurred in the USPS. This shedding of over 30,000 jobs by a single organization equaled or surpassed the job losses of several entire sectors.

At the same time, however, the shift to digital has generated some employment growth for the mail stream. This is seen primarily in a net gain in jobs supported by products and services sold through ecommerce, primarily at major "pure-play" e-commerce sites like Amazon, whose exceptionally strong growth in this area has been eroding consumer sales among traditional retailers, including -- surprisingly -- their gains in e-commerce sales.

³ Source: "A Decade of Facts and Figures" USPS website. Accessed November 21, 2015.

⁴ FedEx *Annual Report* for 2014, 2011, 2009, and 2007.

Revenue: Losses/Gains by Sector.

By contrast, the mail industry's net revenue gains of slightly more than \$100 billion over three years largely reflects the rebound in the general economy. \$136 billion of gross revenue was added by nine sectors, offset by a gross \$12.6 billion loss of revenue among four declining sectors. These declining sectors were largely those whose paper-based content whose move to digital have seen not only a decline in volumes shipped by mail, but a substantial drop in unit prices owing to digital.

Table 4: Revenue Gains (Losses) By Sector

Group	Mail Industry Sub-Sector	2011 (\$Bn)	2014 (\$Bn)	Difference (\$Bn)	% of Sub-total Gross Revenue Gain (Loss)
C	Periodical Publishers	\$39.33	\$31.00	-\$8.33	66.3%
C	Book/Directory/List Publishers*	\$42.61	\$39.12	-\$3.49	27.7%
C	Direct Response Magazine	\$69.60	\$68.87	-\$0.73	5.8%
C	Greeting Card Publishers	\$4.05	\$4.03	-\$0.03	0.2%
	<i>Sub-total - Revenue Losses</i>	<i>\$155.59</i>	<i>\$143.02</i>	<i>-\$12.57</i>	<i>100.0%</i>
A	Private Mail Services	\$1.95	\$2.15	\$0.20	0.1%
C	Insert Media	\$24.40	\$25.40	\$1.00	0.7%
A	Postal Service	\$65.54	\$67.83	\$2.29	1.7%
A	Printing and Paper	\$88.84	\$91.25	\$2.41	1.8%
A	Direct Marketing Production	\$39.55	\$44.19	\$4.64	3.4%
C	Catalogs	\$126.10	\$136.70	\$10.60	7.8%
A	Couriers and Messengers	\$77.58	\$88.85	\$11.27	8.3%
C	Non-Catalog Direct Mail	\$504.50	\$541.92	\$37.42	27.5%
C	Electronic Shopping and Mail-order	\$221.37	\$287.56	\$66.18	48.7%
	<i>Sub-total - Revenue Gains</i>	<i>\$1,149.84</i>	<i>\$1,285.84</i>	<i>\$136.00</i>	<i>100.0%</i>
	<i>Total Net Gains (Losses)</i>	<i>\$1,305.43</i>	<i>\$1,428.86</i>	<i>\$123.43</i>	

Compared with the distribution of employment gains and losses, revenue changes were more sharply accentuated, with gaining sectors adding almost \$11 for every dollar lost among declining sectors. The business cycle's return to economic growth encouraged firms throughout the economy – including in the mail industry – to modernize plant and equipment in the quest for improved profitability and revenues (without necessarily expanding their workforces.)

CONCLUSION: PRIVATE SECTOR DEPENDENCE ON MAIL REQUIRES A HEALTHY USPS

As can be seen above, revenues and employment tell a more complex story about the mail industry, one of modernization, efficiency gains and recovery in revenues that defies those who predicted the imminent death of mail at the hands of digital.

Above all, the distribution of trends in productivity gains among those who deliver the mail and revenue gains among those who use it reveals that firms and industries throughout the economy still see mail as productive, and for this reason continue to depend on it heavily, notwithstanding the changes that have taken place, and the challenges the industry faces.

Thus policies that have a dramatic influence on the core of the mailing industry – the firms that deliver America’s mail, with the USPS at the core of the core – directly impact huge numbers of workers and revenues, and this well beyond the mailing industry core itself. Dependence on the delivery core can be seen clearly by comparing the share of jobs among the delivery component with those in the remainder of the industry:

Delivery Segment Employment (16.3% of Mailing Industry Total), of which:

- 8.2% -- in the Postal Service
- 8.1% -- in private sector delivery companies

Supplier and User employment (83.7% of Mailing Industry Total), of which:

- 2.4% -- in firms supplying inputs to the delivery segment
- 8% -- in companies that supply mail inputs (paper, envelope, design mail ads, etc.)
- 28% -- in businesses using the mail-stream for bill presentment and payment
- 45% -- in firms dependent on the mail stream to advertise or deliver goods and services

As one can see, almost 85% of mailing industry jobs depends upon the delivery sector, of which the USPS is the center.

However, if one analyzes further between the public and private sector components of the delivery network (i.e. separating the USPS from its private sector competitors), the dependence of the US economy on the USPS becomes even clearer. Some 6.9 million private sector jobs depend on the 617,000 jobs of the USPS. This distribution of jobs impact clearly shows (as would a similar comparison of revenues) that the Postal Service’s importance to the economy is substantially greater than one might assume if the Postal Service were examined in isolation. In consequence, policies that affect the health of the USPS affect the health of the overall delivery sector, and in turn, this sector is an indispensable artery for hundreds of billions of dollars of private sector revenues and millions of American jobs throughout the economy.

In short, with more than ten-times as many jobs in the private sector as there are in the public sector, a healthy postal service means an economically healthy America.

SUMMARY TABLES

Table 5: Employment Summary by Major Mailing Industry Group

	# Jobs (2011)	# Jobs (2014)	% Change	Diff. # of Jobs
Group A – Mail Stream Delivery and Input Providers	2,013,070	2,009,877	-0.2%	-3,193
Group B – Users of Transactional and Correspondence Mail	2,335,196	2,084,905	-11.9%	-256,936
Group C – Users of Standard Mail (Direct Mail Advertiser, Publishers, and Package Delivery Dependent Retailers)	3,481,654	3,392,044	-2.6%	-89,610
GRAND TOTAL	7,829,920	7,486,826	-4.4%	-343,094

Table 6: Revenue Summary by Major Mailing Industry Group

	\$ Revenue (2011)	\$ Revenue (2014)	% Change	Diff. \$ Revenue
Group A – Mail Stream Delivery and Input Providers	\$273.5	\$294.3	8%	\$20.8
Group B – Users of Transactional Mail	(Unmeasured)	(Unmeasured)	--	--
Group C – Users of Standard Advertising Mail and Mail Delivered Packages	\$1,032.0	\$1,134.6	10%	\$102.6
GRAND TOTAL	\$1,305.4	\$1,428.9	9%	\$123.4

Table 7: Employment Summary By Mailing Industry Sectors

<i>Group A - Mail Production and Distribution</i>	# Jobs (2011)	# Jobs (2014)	% Change	Diff. # of Jobs
1) Postal Service	648,350	617,254	-4.8%	-31,096
2) Private Sector Delivery (FedEx, UPS)	565,659	605,376	7.1%	40,205
3) Delivery Suppliers	179,386	181,382	1.1%	1,996
4) Mail Input Supplier (Paper, Printing, Printing Industry Suppliers, Direct Mail Design)	619,675	605,864	-2.3%	-14,299
Group A Sub-Total	2,013,070	2,009,877	-0.2%	-3,193
<i>Group B – Users of Transactional Mail</i>				
1) Private Sector Transactional Mail Employees	2,045,696	1,834,916	-11.6%	-217,426
2) Self Employed Transactional Mail Individuals	289,500	249,989	-13.6%	-39,511
Group B Sub-Total	2,335,196	2,084,905	-11.9%	-256,936
<i>Group C - Jobs Due to Sales of Products and Services</i>				
1) Jobs Generated to Support Catalogue Generated Sales	464,000	447,906	-3.5%	-16,094
2) Jobs Generated to Support Non-catalogue Direct Mail Generated Sales	2,241,000	2,192,452	-2.2%	-48,548
3) Jobs Generated to Support Direct Response Magazine Ad Sales	311,000	278,080	-10.6%	-32,920
4) Jobs Generated to Support Insert Advertising Sales	108,000	102,973	-4.7%	-5,027
5) Publishing of Periodicals /Books, Greeting Cards /Directories	116,776	105,173	-9.9%	-11,603
6) Electronic Shopping and Mail Order Houses (Employment from Package Delivery Dependent Remote Sales)	172,212	208,820	21.3%	36,607
7) Retailers with Stores (Employment from Package Delivery Dependent E-commerce only)	68,666	56,641	-17.5%	-12,025
Group C Sub-Total	3,481,654	3,392,044	-2.6%	-89,610
GRAND TOTAL	7,829,920	7,486,826	-4.4%	-343,094

Table 8: Revenue Summary By Mailing Industry Sectors

Group A - Mail Production and Distribution	Revenue (2011) Billions	Revenue (2014) Billions	% Change	Diff. Revenue Billions
Production of Mail				
Direct Mail Production	\$39.6	\$44.2	12%	\$4.6
Printing and Paper	\$88.8	\$91.2	3%	\$2.4
SUB-TOTAL for Mail Production	\$128.4	\$135.4	5%	\$7.0
Delivery				
Couriers and Messengers	\$77.6	\$88.9	15%	\$11.3
Postal Service	\$65.5	\$67.8	3%	\$2.3
Private Mail Services	\$2.0	\$2.1	10%	\$0.2
SUB-TOTAL for Distribution	\$145.1	\$158.8	9%	\$13.8
SUB-TOTAL for Mail Production and Distribution	\$273.5	\$294.3	8%	\$20.8
Group C - Revenue Due to Sales of Products and Services				
1) Non-catalog Direct Mail	\$504.5	\$541.9	7%	\$37.4
2) Catalogs	\$126.1	\$136.7	8%	\$10.6
3) Direct Response Magazine	\$69.6	\$68.9	-1%	\$(0.7)
4) Insert Media	\$24.4	\$25.4	4%	\$1.0
5) Greeting Card Publishers	\$4.1	\$4.0	-1%	\$(0.0)
6) Periodical Publishers	\$39.3	\$31.0	-21%	\$(8.3)
7) Book/Directory/List Publishers	\$42.6	\$39.1	-8%	\$(3.5)
8) Retailers (Package Delivery Dependent E-Commerce)	\$221.4	\$287.6	30%	\$66.2
SUB-TOTAL	\$1,032.0	\$1,134.6	10%	\$102.6
GRAND TOTAL	\$1,305.4	\$1,428.9	9%	\$123.4

Table 9: Mail Stream Input Providers: Mail Related Employment Per Industry

	2011	2014	% Change	# of Jobs
Paper	61,578	59,080	-4%	-2,498
Printing	447,294	425,713	-5%	-21,582
Other Chemical	9,028	8,859	-2%	-169
Other Machinery	10,278	11,002	7%	724
Commercial and Service Mach	1,968	1,873	-5%	-96
Misc. Manufacturing	3,722	4,131	11%	410
Machinery Wholesalers	6,261	6,808	9%	548
Paper Product Wholesalers	10,725	10,803	1%	78
Sub-Total Mail-Related Manufacturing	550,855	528,269	-4%	-22,585
Direct Mail Advertising	68,820	77,595	13%	8,775
Total Input Providers	619,675	605,864	-2%	-13,811

Table 10: Employment Among Users of Transactional and Correspondence Mail -- All Industries

	# Jobs (2011)	# Jobs (2014)	% Change	Diff. # of Jobs
Employed Within Firms	2,045,696	1,834,916	11.6%	-217,426
Self Employed	289,500	249,989	13.6%	-39,511
Total	2,335,196	2,084,905	-11.9%	-256,936

Table 11: Employment From Users of Standard Mail (Direct Mail Advertising)

	# Jobs (2011)	# Jobs (2014)	% Change	Diff. # of Jobs
1) Catalog	464,000	447,906	-3.5%	-16,094
2) Non-catalog Direct Mail	2,241,000	2,192,452	-2.2%	-48,548
3) Direct Response Magazine Ads	311,000	278,080	-10.6%	-32,920
4) Insert Advertising	108,000	102,973	-4.7%	-5,027
Total	3,124,000	3,021,411	-3.3%	-102,589

Table 12: Revenue Due to Publisher Users of Standard Mail

	Revenue (2011)	Revenue (2014)	% Change	Diff. Revenue
5) Greeting Card Publishers	\$4.1	\$4.0	-0.6%	\$(0.0)
6) Periodical Publishers	\$39.3	\$31.0	-21.2%	\$(8.3)
7) Book/Directory/List Publishers	\$42.6	\$39.1	-8.2%	\$(3.5)
Total	\$86.0	\$74.1	-13.8%	\$(11.84)

Figure 1: 2014 Share of Employment Among Users of Standard Mail and Equivalents

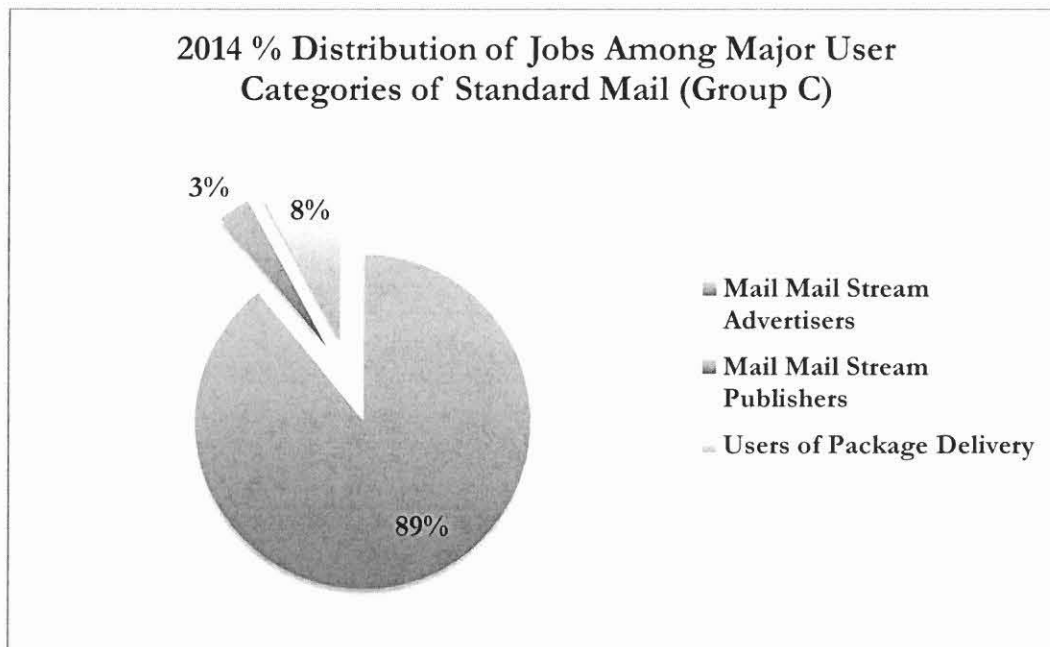


Table 13: Employment Among Retailers Dependent on Parcel Delivery

	# Jobs (2011)	# Jobs (2014)	% Change	Diff. # of Jobs
6) Electronic Shopping and Mail Order Houses	172,212	208,820	21.3%	36,607
7) Brick and Mortar Retailers (E-commerce activity only)	68,666	56,641	-17.5%	-12,025
Total	240,878	265,461	10.2%	24,582

Table 14: Revenues Among Retailers Dependent on Parcel Delivery

	Revenue (2011)	Revenue (2014)	% Change	Diff. Revenue
8) E-commerce Electronic Shopping and mail-order	\$221.4	\$287.6	29.9%	\$66.2
Total	\$221.4	\$287.6	29.9%	\$66.18

***2014 MAILING INDUSTRY EMPLOYMENT AND REVENUE:
DATA SOURCES AND CALCULATION DETAILS BY
INDUSTRY SECTOR***

METHOD FOR CALCULATING THE U.S. MAILING INDUSTRY'S ECONOMIC IMPACTS

DEFINING AND MEASURING THE US MAILING INDUSTRY

This study reports the size of the US mailing industry for 2014 in terms of employment and gross revenues. It applies the same general research methods as were used in prior studies going back to 2009, as modified to reflect changes in data availability and the industry itself.

The study defines the mailing industry (sometimes referred to as “the mail stream”) as firms that fulfill at least one of the following roles:

- **Mail-stream Providers: Delivery Infrastructure and Input Suppliers.** These firms provide the delivery network through which the mail stream flows: the collecting, sorting, distribution, delivery of mail and parcels by the US postal service and its direct competitors; together with firms supporting key mail stream inputs, such as the manufacture of paper and envelopes, or the development of mail-based advertising. For these firms we report immediately mail connected jobs and top-line revenues, net of any non-mail activities.
- **Mail Stream Users: First Class Mail (FCM) and Courier Products.** The largest users of first class mail and its private sector analogs are businesses using it for transactional purposes (bill presentment and receipt of payment), as well as for conducting correspondence of a non-advertising nature with customers, suppliers, partners, etc. Jobs measured are those directly necessary to the internal creation, handling, receipt or similar processing of bills, statements, invoices, or the sending or receipt of business correspondence. (For reasons explained later in context, revenues returning to FCM business users are not measured. And while consumers generate a small portion of FCM, the study assumes consumers have neither employees nor mail-attributable revenues.)
- **Mail Stream Users: Standard Mail and Equivalents.** These firms are most closely associated with the use of various types of USPS standard mail products (or their private sector equivalents.) Standard mail includes advertising mail, package delivery, and the delivery of printed publications, especially periodicals and books. These firms use standard mail to advertise products or services to selected customers or prospects; deliver products that have been ordered remotely, or deliver magazines to subscribers, and so forth. Jobs and revenues reported are those directly and necessarily dependent on the use of the mail-stream, i.e. net of employment or revenues that would have otherwise occurred or are attributable to unrelated business activities.

For each of the economic roles above, the study identifies the corresponding categories of participating firms within third-party data sources. Their data was then carefully analyzed using procedures established in prior editions of this study to quantify the employment and top-line revenues directly associated with each, and to exclude employment or revenues associated with non-mail activities.

As some firms or whole industry sectors may play multiple roles in the mail stream simultaneously. (For example, a paper manufacturer will earn some of its revenue as a provider of mail stream inputs, while its billing department is also a user of transactional mail, and its marketing department a user of standard advertising mail.) To prevent any possible over-counting, revenue or employment impacts for each role were calculated sequentially and impacts already measured were excluded.

Throughout this study, we adopt measures, assumptions, and methods that are as conservative as possible. In particular, this study does not include types of secondary impacts (such as total value of salaries, local, state, or federal taxes paid, etc.) commonly included in economic impact studies conducted for other industries.

This study's findings derive from the most recently available annual data sourced from independent third-party sources, many of them governmental. The most important of these sources include:

- U.S. Bureau of Labor Statistics in its Occupation Employment Statistics program
- U.S. Census Bureau's on-going updates to its Economic Census;
- Direct Marketing Association's most recent model of the ROI of various direct market media (The Power of Direct Marketing: ROI, Sales, Expenditures, and Employment in the US, 20-2011-2012 Edition)
- US Census Bureau's Manufacturing Report
- US Census Bureau's Quarterly Financial Reports
- Annual reports of the United States Postal Service and its major private sector competitors.
- Dun and Bradstreet analyses were used to estimate the distribution of national level results at the state and Congressional District levels.

To compare mail industry impacts with those of other industries or the national economy, the study references economically appropriate bases of total national or state employment or revenues. For employment comparisons, the study references total US and state employment levels as reported by the US Bureau of Labor Statistics. For revenue, the study compares mail industry output to total US sales (or US gross output) and annual revenues of other industries as reported by the US Census Bureau and the US Bureau of Economic Analysis (BEA).⁵

In the following sections we describe in detail the component estimates of mailing industry jobs and revenues. It is divided into three sections focusing on the major areas of industry activity identified above. We describe the sectors of which these activities are comprised, identify their 2014 employment and revenue using master summary tables, then identify the principal sources of information and outline the analysis applied. The methodology appendix contains further information regarding data sources and procedures used to derive the findings.

⁵ The narrower GDP measure takes account of only the value of final (net) sales.

GROUP A. CORE DELIVERY NETWORK AND INPUT PROVIDERS

To measure the “core” mail-stream provider sector of the US mailing industry, the study analyzed four sectors of firms that provide the delivery infrastructure and material inputs that most commonly come to mind when one thinks of phrases such as “moving the mail” or “the mail stream:” first and foremost the USPS and private sector entities whose transportation infrastructures collect, sort, and deliver mail and packages; and second, the businesses that supply inputs to create mail and packages, such as paper, printing or mail content, or that provide supporting services.

- USPS (Delivery Network A1)
- Private Sector Couriers (Delivery Network A2)
- Suppliers to the Delivery Network (A3)
- Mail Input Providers (A3)

A1 and A2. Delivery Network Providers: USPS and Private Sector Competitors

The delivery of mail and packages comprises the USPS (group A1) together with private sector firms providing home and business delivery of paper-based communications, such as FedEx and UPS (group A2.) The delivery network grouping A2 also includes a small portion of activity provided by private mail center services and air transport.

Employment. Employment figures for the USPS represent the sum of 486,822 career and 130,432 non-career employees. Figures are taken directly from the USPS annual reports and SEC form 10-K public filings. For the private sector firms, data was taken from the US Bureau of Labor Statistics 2014 Occupational Employment Survey (OES) for the “Couriers and Express Delivery” sector (NAICS code 492000). The Delivery Providers group also includes a small portion (of employment associated with the “Business Support, Private Mail Centers” (5% of NAICS 561400) and the “Air Transportation” industry sectors (2.5% of NAICS 481000).

Revenues. Revenues for the USPS are taken from its published annual reports available on the USPS website and SEC 10-K filings. Revenues for private sector delivery are annual figures calculated from the US Census Bureau’s Quarterly Financial Reports for the couriers’ sector (NAICS 49200) and private mail centers (NAICS 561431). (Table 2 - Estimated Revenue by Tax Status for Employer Firms: 2007 Through 2013). At the time of writing, revenue figures for the courier sector was only current as of 2013. Thus, 2014 data was estimated by calculating the average 2014-2013 growth in US revenues for two of the largest firms in the sector, FedEx and UPS, as published in their annual reports, then applying the resulting increase (4.1%) to the Census Bureau *Quarterly Financial Report* 2013 revenue totals for both NAICS 49200 and 561431.⁶

A3. Suppliers to Delivery Network Providers (Employment Only)

The third component of the mailing industry delivery and supplier sector consists of suppliers to firms in the delivery network. The USPS and its private sector competitors make huge purchases of a vast range of capital and non-capital goods and services each year in order to keep mail and parcels moving. These purchased inputs range from large high-speed digital sorting machines to fuel for delivery trucks and uniforms for delivery personnel to bio-hazard detection equipment.⁷ Many of these purchases are sub-contracted activities that the USPS or its competitors may have at one time formerly performed in-house using their own personnel, or may yet do so in the future. For example, in addition to maintaining its own fleet of delivery vehicles, the USPS sub-contracts a considerable amount of mail transportation to private sector trucking companies.

To estimate the volume of employment in sub-sector A3, the study first identifies total expenditures by sectors A1 and A2 on the set of inputs most closely aligned with mail sorting and delivery.⁸ US Postal Service spending (sector A1) was identified from two sources. Spending on supplies and services were identified from the *USPS Cost Segments &*

⁶ Private mail centers represent less than 2.5% of the combined revenues of the non-USPS delivery subsector. Thus the 2014 increment attributed to private mail centers on the basis of courier sector growth represents less than one-tenth of 1% (0.093%) of total revenues for the A2 sub-sector.

⁷ For an overview of the diverse range of inputs comprising the supply chain of the USPS, see their publication, *What We Buy & Who Buys What*. <https://about.usps.com/suppliers/buying.htm>.

⁸ Note that while strictly speaking delivery sector expenditures on inputs represent revenues for the delivery sector, this study, consistent prior studies, this 2014 study does not include delivery sector supplier revenues as part of total industry

Components Report FY 2012, the most recent report available at the time of research.⁹ Outlays for capital equipment were identified from the United States Postal Service's *Financial & Operating Statement* from September 2013.¹⁰ Following the precedent of prior studies, USPS expenditures on categories of goods and services most closely related to the provision of mail delivery services were totaled. In fiscal year 2013, the postal service spent over \$11.4 billion for supplies, services, and capitalized construction projects and capital equipment. This amount is used as a proxy for 2014 expenditures, on the assumption that USPS cost-containment efforts and input price inflation will likely cancel each other out.

To convert USPS expenditures to employment, the study used the RIMS II economic model developed and periodically update by the Bureau of Economic Analysis of the U.S. Department of Commerce.¹¹ The RIMS II model consists of multipliers that have been historically shown to describe the impact on employment and economic output within a state that is caused by an economic activity or spending within a state by a given industry or type of spending. Each category of Postal Service spending was first associated with an industry category (as identified by an NAICS code). The NAICS code was used to select the appropriate RIMS II employment multiplier appropriate for that category of expenditure. The employment multiplier used was the weighted average of the multipliers for the 50 states and District of Columbia, which yielded the national total of incremental employment represented by USPS input purchases.

The next step was to extrapolate USPS findings to other firms in the delivery network. First, the study calculated the ratio of USPS mail delivery input purchases per dollar of USPS revenues. This ratio was then applied to the US revenues of the largest private sector providers as reported in their annual reports for 2014. To convert this expenditure estimate to supplier employment, the same RIMS II model was used as for USPS expenditure. Total input employment for the entire mail delivery sector thus represents the sum of the employment estimates for USPS and the private sector couriers.

Revenues. The study does not report revenues for delivery network suppliers. Although the estimates of expenditures on suppliers used to calculate A3 employment technically represent revenues received by the firms in sector A3, this amount is not included since these amounts would represent deductions from revenues reported for A1 and A2.

Group A4 Mail Stream Input and Content Producers

The second significant component of the core mailing industry infrastructure are producers and distributors of the paper and packaging inputs that users purchase for eventual placement into the mail stream. This group includes manufacturers and distributors, wholesalers or producers of:

- Raw and finished paper
- Inks
- Envelopes and packing material
- Machinery for manufacturing paper
- Printing-related equipment
- Mail deliverable content

In referring to mail deliverable content, this study means firms that turn paper and packaging to specific uses by developing the different forms of printed matter that may be delivered through the mail stream (such as printers, book binders, etc. who create mail-deliverable books or magazines) as well as firms that design content specifically to mailed as unbound letters, post-cards. A large portion of this latter category consists of firms involved in the production of direct mail advertising. Conversely some industry sectors, particularly retail, were not included as part of the input provider sector, since no methodology has been available to estimate the percentage of store revenues or employment attributable to the sale of mail-related paper products.

Employment. Mail inputs sector employment calculations began by identifying the closest-matching set of NAICS industry categories within the Bureau of Labor Statistics Occupational Employment Survey data. In 2009, the mailing

⁹ Available at <http://about.usps.com/who-we-are/financials/welcome.htm>. The USPS *Cost Segments & Components Report FY 2014* was published after the completion of this study.

¹⁰ Available at <http://about.usps.com/who-we-are/financials/welcome.htm>.

¹¹ <https://www.bea.gov/regional/rims/>

industry developed internal assessments regarding the share of total revenues of mail input providers and distributors accounted for by the demand from mail industry users. These revenue shares were then assumed for calculating shares of employment totals for the corresponding occupational categories to calculate the share of employment attributable to users of the mail stream. As the share of mail stream demand has been assumed to be relatively steady within total demand for these products over the last few years, the percentages were applied again in 2014, as follows:

Table 15: Types of Mail Stream Input: NAICS Sector and Mail Related Employment Percentages

TYPE OF MAIL STEAM INPUT	INDUSTRY SECTOR (NAICS DESCRIPTION)	NAICS CODE	MAIL RELATED EMPLOYMENT ESTIMATE (% of NAICS Sector Total Employment)
Producers of Mailable Paper products ¹²	Paper	322000	15.8%
Printing	Printing	323000	93.4%
Inks	Other Chemical	325900	10.7%
Paper Machinery	Other Machinery	333200	10.1%
Printing Machinery	Commercial and Service Machinery	333300	2.1%
Paper / Printing	Misc. Manufacturing	333900	1.6%
Paper and Printing Machinery Wholesalers	Machinery Wholesalers	423800	1.0%
Paper Product Distribution	Paper Product Wholesalers	424100	8.7%
Mail Content Creation	Direct Mail Advertising	541800	16.4%

Revenue. Revenue data for the constituent components of this sector of the mailing industry are drawn from US government economic data sources as described in the following paragraphs.

- **Paper and Printing Industries.** Data on the annual value of shipments was taken from the most recent edition of the US Census Bureau's *Annual Report of Manufacturers* (that of 2013) for those sectors designated by prior edition of this study to be mail-relevant (see tables below.) Data for these industries was then projected for 2014 by calculating their 2013-2014 growth as reported in the US Census Bureau's *Quarterly Financial Reports* for the US Manufacturing Sector, using sectors 323 (printing) and 322 (paper).¹³

¹² Includes envelopes, packages, letter and legal-sized paper, books, etc., but excluding newsprint.

¹³ See US Census Bureau, *Quarterly Financial Reports*, Table 45.0 -- Income Statement for Corporations in NAICS Manufacturing Subsector 323, Total Assets \$25 Million and Over; Table 44.0 -- Income Statement For Corporations in NAICS Manufacturing Subsector 322, Total Assets \$25 Million and Over. <http://www.census.gov/econ/qfr/>

Table 16: Mail-Relevant Sectors of the US Printing Industry

Code	Description
3231111	Magazine and periodical printing (gravure), including magazine and comic supplements for Sunday newspapers (excluding printing of newspaper advertising inserts)
3231112	Catalog and directory printing (gravure)
3231114	Advertising printing (gravure)
3231116	Other commercial and general job printing (gravure), including customized stationery
3231118	Magazine and periodical printing (lithographic)
323111B	Catalog and directory printing (lithographic)
323111C	Financial and legal printing (lithographic)
323111D	Advertising printing (lithographic)
323111E	Other commercial and general job printing (lithographic)
323111G	Commercial and general job printing other than label and wrapper printing (flexographic)
323111J	Digital printing
323111K	Unit set business forms, loose or bound, manifold books, and pegboard accounting systems
323111L	Continuous business forms, custom and stock
323111M	Checkbooks (including inserts and refills, but excluding those in continuous form and die-cut)
323111N	Blankbooks, excluding checkbooks and looseleaf types
323111P	Looseleaf binders, devices, inserts, and forms, excluding school and commercial looseleaf filler paper
323111T	Other commercial and general job printing (letterpress)
323111V	All other commercial and general job printing (excluding lithographic (offset), gravure, flexographic, screen, quick, digital, letterpress, and engraving printing)
323111W	Commercial printing (except screen and books)
323117	Books printing
323120	Support activities for printing

Table 17: Mail-Relevant Paper Industry Sectors

NAICS Code	Sector Description
3221216	Bleached bristols and clay-coated, uncoated freesheet, cotton fiber, special industrial, packaging, and industrial converting papers
3222305	Envelopes, commercial, all types and materials
3222307	Stationery
3222309	Tablets, pads, and related products
322230W	Stationery product manufacturing, total

- **Direct Mail Production.** Revenues for firms involved in the design and production of direct mail are calculated using the most recent available edition of the US Direct Marketing Association's *Power of Direct Marketing Report*, 2011-2012. In this report, direct marketing advertising expenditures made by mail-using firms are by definition equal to revenues received by direct-marketing supplier firms. For direct mail production revenues, therefore, the study takes the sum of 2012 user expenditures for four mail-relevant direct marketing media: direct mail, direct mail catalog, direct response magazine, and direct response inserts. It then estimates 2014 values using the *Power of Direct* report's projected compound annual growth rate for these media. From the total of these four 2014 estimates, the study then excludes the direct mail revenues of the USPS. (In the *Power of Direct Report*, USPS postage is included in total direct marketing expenditure, but in the present study the USPS's revenues are reported separately. See A1, above.)

GROUP B: BUSINESS USERS OF TRANSACTIONAL AND CORRESPONDENCE MAIL

The second major sector of the mailing industry, and the first user group, comprises those businesses that use the mail stream for transactional and correspondence purposes. This mail stream closely corresponds to USPS' "First Class Mail" and "Express Mail" product categories, along with analogous products offered by private sector couriers. The need to conduct business at a distance is universal, especially in a continental market like that of the US. As mail has long been the lowest-cost means of transporting the documents necessary to commerce, users of transactional and correspondence mail comprises firms in every industry.

Employment. To measure the directly mail-related employment among users of transactional and correspondence mail, the study identified occupations that the *Occupation Employment Statistics* program defines as clerical or similar activities where producing or receiving mail was intimately involved. The jobs in this category, for example, includes people involved in handling financial transactions and statements that are delivered via the mail, printing, mail sortation, and as couriers or messengers. (For consistency with prior studies, in this sector we also report "in-house" employees among user firms involved in the production of direct mail.¹⁴) The occupations from which job counts were collected are as follows:

**Table 18: Mail Related Occupational Categories used to analyze
Bureau of Labor Statistics Occupational Employment Survey OES 2014 employment Data**

OES Code	OES Occupational Classification
43-3011	Bill and Account Collectors
43-3061	Procurement Clerks
43-4021	Correspondence Clerks
43-5021	Couriers and Messengers
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
51-5111	Prepress Technicians and Workers
51-5112	Printing Press Operators
51-5113	Print Binding and Finishing Workers
53-7063	Machine Feeders and Off-bearers

Counts of employees in these occupations were calculated from the OES data for 2014 for all US firms using 2 digit NAICS code super-sectors. In addition to employment in these "line worker" occupations, a portion of supervisory occupations were included within each of the two-digit NAICS codes, with proportions reflecting the incidence of supervisory personnel for each category of mail-related line occupations in each industry. From these super-sector totals we deducted employee totals for specific industries at the narrower 3, 4, or 5-digit NAICS code level whose employment had already been measured and reported (above), i.e. those focused on producing mail or distributing mail.

To measure in-house employees involved in the production of direct mail, the following OES classifications were used. 21.6% of jobs in these marketing/creative related occupations was taken as an approximation of the proportion of such employees on an expenditure basis likely to be involved in direct-mail production activities relative to other forms of advertising or promotional activities.

OES Code	OES Occupation Description
11-2011	Advertising and Promotions Managers
11-2021	Marketing Managers
27-1011	Art Directors
27-1024	Graphic Designers
27-3031	Public Relations Specialists

¹⁴ This group of in-house employees is supplemental to employees reported among users of Direct Mail Advertising (Group C1-4) owing to the different methodology used. Further, this group of employees was not measured in the DMA's "Advertiser" employment figures cited as the source for Direct Mail production employment in A4, above, which measures out-sourced "supplier" employees only.

**TABLE 19: In-House Employment In Transactional, Correspondence,
And Advertising Mail Production Occupations**

NAICS CODE	INDUSTRY SECTOR	2011	2014	DIFF	% CHANGE
11	AGRICULTURE, FOREST, FISHING, AND HUNTING	1,194	917	-277	-23.2%
21	MINING	1,531	1,892	361	23.6%
22	UTILITIES	9,673	7,530	-2,143	-22.2%
23	CONSTRUCTION	11,207	11,005	-202	-1.8%
31-33	MANUFACTURING	282,696	244,678	-38,018	-13.4%
42	WHOLESALE TRADE	96,413	88,014	-8,399	-8.7%
44-45	RETAIL TRADE	54,516	47,333	-7,182	-13.2%
48-49	TRANSPORTATION AND WAREHOUSING	111,934	147,795	35,861	32.0%
51	INFORMATION	128,519	101,380	-27,139	-21.1%
52	FINANCE AND INSURANCE	186,391	141,390	-45,001	-24.1%
53	REAL ESTATE AND RENTAL AND LEASING	22,463	18,260	-4,203	-18.7%
54	PROFESSIONAL SCIENTIFIC AND TECHNICAL SERVICES	331,445	312,890	-18,555	-5.6%
55	MANAGEMENT OF COMPANIES AND ENTERPRISES	108,027	109,443	1,416	1.3%
56	ADMIN, SUPPORT, WASTE MANAGEMENT	105,469	88,785	-16,684	-15.8%
61	EDUCATION SERVICES	62,361	52,967	-9,394	-15.1%
62	HEALTH CARE AND SOCIAL ASSISTANCE	359,840	308,814	-51,026	-14.2%
71	ARTS, ENTERTAINMENT AND RECREATION	17,785	17,765	-20	-0.1%
72	ACCOMMODATION AND FOOD SERVICE	8,809	8,393	-416	-4.7%
81	OTHER SERVICES (EXCEPT PUBLIC ADMIN)	56,899	49,816	-7,083	-12.4%
99	FEDERAL, STATE, AND LOCAL GOVERNMENT	88,524	75,848	-12,676	-14.3%
	GRAND TOTAL	2,045,696	1,834,916	-210,780	-10.3%

B2. Self Employed Individuals Working For Users of Transactional and Correspondence Mail

In addition to their in-house staff, businesses that generate or receive transactional or correspondence mail directly or indirectly engage the services of many self-employed individuals. Many self-employed individuals are used as couriers, messengers and truck drivers in order to pick-up and/or deliver mail. Others help handle some of the tasks associated with preparing or producing mail and handling incoming or outgoing mail associated with payments or statements.

The number of self-employed individuals involved in the mail industry was identified from information on self-employed individuals across all occupations collected by the Bureau of Labor Statistics as reported in the National Employment Matrix tables.¹⁵ The self-employed occupations deemed mail-related were the same categories of occupations used to identify jobs in mail related occupations above with the addition of self-employed delivery service truck drivers.¹⁶ Employment totals for 2014 were calculated by applying the growth rate for each occupation to the most recent year contained in the BLS Employment Matrix tables.

B1 and B2 Revenues (Not Measured.) Measurement of the revenues for users of transactional and correspondence mail was not undertaken owing to the methodological obstacles to distinguishing the independent contribution of bill

¹⁵ http://www.bls.gov/emp/ep_table_109.htm

¹⁶ Per the procedure used in prior studies, this occupation was added to measure self-employed contractors used by FedEx Ground, DHL, the Postal Service, and most local couriers over and above employment already estimated as part of category A3.

presentment and payment activities to the total value of mail-based transactions, separate and apart from the underlying value contributed by the goods and services sold.

GROUP C: BUSINESS USERS OF STANDARD MAIL AND EQUIVALENTS: ADVERTISING, PRINTED MATERIAL AND PARCEL DELIVERY

The third major component of the mail stream, and the second user group, comprises those businesses who use the mail for non-transactional commercial purposes. Such purposes include advertising their goods and services through the mail stream; fulfilling weekly or monthly periodical and magazine subscriptions; or shipping parcels that have been ordered remotely. This group of users is also very widely distributed throughout every sector the US economy. For example, everything from seeds and agricultural equipment to electronics, from camping gear to high-end fashions, from real estate and travel destinations, to credit cards have been advertised and or shipped through the mail.

Group C1: Users of Standard Mail – Advertising

Firms in this user category turn to the mail stream to advertise goods or services to lists of recipients expected to respond favorably. Users of direct mail advertising can be found in virtually every industry and include some of the nation's largest firms as well as small businesses selling products or services to local markets. In most cases, mail is designed to stimulate the recipient to respond directly to the advertiser in a measurable fashion, whether by return mail, calling a toll-free number, visiting a website, or sending an email, or other similarly measurable response channel.

Users' employment and revenues represent jobs and sales resulting from increased economic demand for goods and services generated by direct mail. The Direct Marketing Association, the most important direct mail trade association in the US, periodically commissions the econometric research firm Global Insight to measure both direct marketing expenditure and the resulting incremental sales and jobs created by every direct marketing media across all US industries. These findings are published periodically in the DMA's *Power of Direct Marketing Report* and cover the most recent five-year period at the time of publication, and are forecast five years forward.

To measure direct marketing's contribution to the US Mailing Industry, this study uses data from the *Power of Direct Marketing Report* for four types advertising delivered by mail:

- Direct Mail - Catalogs – these are multi-page illustrated advertisements in booklet form, sometimes referred to in USPS documents as “flats.”
- Direct Mail - Non-catalog – advertising material delivered in the form of post-cards, letters within envelopes, or other unbound formats.
- Direct Response Magazine – this refers to advertisements printed in magazines that are designed to generate a direct response from the reader to purchase a product or service or contact the advertiser.
- Insert Media – advertising that are inserts in magazines, invoices and statements or included in a mailing that includes advertising from multiple vendors such as coop advertising and envelopes of coupons.¹⁷

Revenues. Global Insight's Direct Marketing economic model correlates industries' rate of expenditure on direct marketing inputs (such as internal marketing staff salaries, external media 'buys', fees to ad agencies, list rentals, etc.), with data measuring expenditures all other types of business activity that contribute to the sale of an industries' goods or services while accounting for non-expenditure and non-pricing factors of demand.

Employment. Once the value of incremental sales accruing to users of a given advertising media has been identified, Global Insight analyses labor market factors to calculate the number of incremental employees necessary to produce such incremental sales at prevailing wage rates for each industry.

¹⁷ Global Insight, *The Power of Direct Marketing*, Direct Marketing Association, 2011-2012.

From these procedures Global Insight is able to ascertain the portion of the \$31 Trillion in total US output and over 135 million US employees are directly attributable to the four direct mail marketing media.

Group C2. Publisher Users of Mail: Mail-Delivered Periodicals, Books, Greeting Cards, etc.

In the following sections we report the contribution of other economic activities that depend on the mail stream. These are the jobs and revenues of industries that depend upon the mail industry to deliver their products. The first of these users comprise publishers. Publishers have long depended on mail and parcel carriers to distribute their books, magazines, directories, and greeting cards.

Per previous studies of the mail industry, these are identified with the following NAICS sectors in US government data:

Table 20: Publishing Sub-Sector

Publishing Sub-Sector NAICS Code	Publishing Sub-Sector	As % of Total Publishing Sector
51112	Periodical publishers	11.25%
51113	Book publishers	10.27%
511140	Directory and Mailing List Publishers	3.93%
511191	Greeting card publishers	1.42%
511199	All other publishers	0.54%

Revenues. Revenues for mail dependent publishers take as their base the most recently available US Economic Census, 2012, using the detailed NAICS sectors and codes identified above. To arrive at figures for 2014, Economic Census data was updated using 2014 data as reported in the *Quarterly Financial Reports* for the US publishing sector, using NAICS code 511. From this total we subtract the value of publisher revenues already measured as part of direct mail generated sales, and reported as part of the direct mail sector, above.

Employment. The jobs associated with mail-dependent publishing industries are identified beginning with the BLS Occupational Employment Survey data for 2014. As BLS OES data are not reported at a sufficiently detailed level to identify the specific publishing sectors of direct relevance to the mail stream, the relative proportions of the mail-relevant publishing sub-sectors within the overall publishing industry were estimated using the most recently available US Economic Census data (for 2012), as adjusted above.

Group C3. Users of Package Delivery: Ecommerce and Other Remote Retailers

Mail stream package users are retailers with remote sales channels who depend upon the package component of the mail-stream to deliver tangible goods to end recipients. Two principal categories of parcel users who depend on parcel delivery are 1) “pure-play” electronic shopping and mail-order houses (including online auction sites) and 2) “multi-channel” retailers who conduct business online via e-commerce websites in addition to their brick and mortar physical store outlets.

For package delivery user category, the study measures parcel-dependent net economic impacts for both employment and revenue. Parcel dependence means that for the baseline economic activity, we include only firm revenues and employment that would not be possible if parcel delivery did not exist to fulfill customer orders.¹⁸ From this base of parcel-dependent activity, the study subtracts any value already measured as part of direct mail’s advertising impact above, to arrive at the net economic impact for parcel delivery.¹⁹

¹⁸

¹⁹ Obviously, many parcels shipped via standard mail B packages and its private sector equivalents were first advertised using standard mail A. The value for these users is measured in the data reported in C1 above. However, other parcels were advertised or sold via other media, principally the Internet. This value is not included in C1.

To measure incremental parcel delivery impacts, the study analyzed ecommerce data from the US census bureau for those retail sectors that sell categories of goods that may be shipped through the mail:²⁰

Table 21: Retail Sub-Sector (Brick and Mortar)

Retail NAICS Code	Retail Sub-Sector (Brick and Mortar)	Sales Channels
442	Furniture and home furnishings stores	Multi-channel
443	Electronics and appliance stores	Multi-channel
444	Building mat. and garden equip. and supplies dealers	Multi-channel
446	Health and personal care stores	Multi-channel
448	Clothing and clothing access. Stores	Multi-channel
451	Sporting goods, hobby, book, and music stores	Multi-channel
452	General merchandise stores	Multi-channel
453	Miscellaneous store retailers	Multi-channel
4541	Electronic shopping and mail-order houses	Pure-Play Remote

To calculate mail dependent impacts for these retail sectors, the study first determined the portion of each sector's sales that occur via non-store channels as follows:

- *Pure Play Remote Retail.* By definition, the NAICS code electronic shopping and mail order houses comprise establishments lacking brick and mortar retail outlets of their own. Thus in this initial stage of the calculations, all of this sector's sales and employment qualify as dependent on parcel delivery – i.e. would not be possible if package delivery did not exist to put purchased goods into the hands of those who order them remotely.
- *Multi-channel retailers.* These sectors have both brick and mortar and remote (E-commerce) sales channels. Most goods are sold in their physical outlets, which are carried away immediately by customers. Only the portion of sales via the Internet can be considered dependent on package delivery, and thus eligible for inclusion.

Revenues. The specific percentages of each sector's sales accounted for by e-commerce was determined for 2013 using the most recent available *U.S. Retail Trade Sales - Total and E-commerce Report*, which was for 2013. To estimate these values for 2014 the study used this report to calculate a trend in ecommerce growth rate for the last three years for each sector and converted the resulting values to a percentage of projected total e-commerce sales. These percentage distributions were then applied to actual ecommerce sales for 2014 as calculated from the US Department of Commerce's *Quarterly E-commerce Reports* for 2014-2015. Finally, sales for each sector that were already accounted for as part of direct mail advertising activity were then deducted from these totals, using the corresponding retail sector tables from the DMA's *Power of Direct Marketing Report 2011-2012*, and using each sector's reported compound annual growth rate to calculate the appropriate values for 2014.

Employment. Similarly, to the revenues calculation, the base of total retail employment for each eligible retail sub-sector was taken from the Bureau of Labor Statistics OES dataset for 2014 for the appropriate NAICS sectors. To these totals the appropriate percentage of e-commerce activity was applied from the revenues calculation above.

²⁰ The requirement that goods sold be parcel deliverable excludes such retail sectors as gas stations and restaurants.

APPENDIX 1: MAILING INDUSTRY EMPLOYMENT AND REVENUES WITHIN STATES AND CONGRESSIONAL DISTRICTS

TABLE 22: MAILING INDUSTRY STATE EMPLOYMENT

State	Jobs	State	Jobs	State	Jobs	State	Jobs
AK	16,235	ID	31,823	MT	23,267	RI	23,759
AL	100,113	IL	317,489	NC	209,128	SC	96,856
AR	63,997	IN	151,129	ND	20,414	SD	19,559
AZ	125,010	KS	74,448	NE	52,007	TN	159,632
CA	832,475	KY	125,289	NH	36,645	TX	566,215
CO	135,567	LA	100,021	NJ	260,497	UT	61,904
CT	102,577	MA	176,576	NM	36,487	VA	200,678
DC	32,319	MD	133,185	NV	55,665	VT	17,617
DE	23,506	ME	32,784	NY	477,446	WA	169,276
FL	484,482	MI	226,789	OH	320,499	WI	164,344
GA	235,098	MN	164,453	OK	74,877	WV	32,965
HI	24,255	MO	144,432	OR	91,194	WY	13,013
IA	79,225	MS	56,602	PA	313,046		

TABLE 23: MAILING INDUSTRY STATE REVENUE

State	\$ Millions	State	\$ Millions	State	\$ Millions	State	\$ Millions
AK	\$677	ID	\$4,995	MT	\$1,018	RI	\$1,505
AL	\$8,634	IL	\$45,717	NC	\$35,350	SC	\$31,838
AR	\$9,878	IN	\$12,052	ND	\$11,249	SD	\$673
AZ	\$10,910	KS	\$2,881	NE	\$9,990	TN	\$43,233
CA	\$142,172	KY	\$7,583	NH	\$17,710	TX	\$114,451
CO	\$13,558	LA	\$55,838	NJ	\$32,323	UT	\$4,040
CT	\$14,295	MA	\$15,443	NM	\$8,071	VA	\$93,916
DC	\$965	MD	\$16,952	NV	\$3,126	VT	\$72,204
DE	\$777	ME	\$2,756	NY	\$185,980	WA	\$74,847
FL	\$35,556	MI	\$91,818	OH	\$38,195	WI	\$13,101
GA	\$38,488	MN	\$27,316	OK	\$9,779	WV	\$1,745
HI	\$712	MO	\$7,617	OR	\$18,322	WY	\$1,132
IA	\$7,474	MS	\$3,417	PA	\$26,560		

TABLE 24: MAILING INDUSTRY CONGRESSIONAL DISTRICT EMPLOYMENT AND REVENUE

State	District	Employment	Mail Industry Revenue (\$ Millions)
AK	00	16,235	\$677
AL	1	13,691	\$5,035
AL	2	14,056	\$607
AL	3	10,694	\$354
AL	4	11,286	\$471
AL	5	15,834	\$507
AL	6	14,583	\$1,176
AL	7	19,969	\$484
AR	1	13,145	\$472
AR	2	19,931	\$8,045
AR	3	17,961	\$891
AR	4	12,960	\$472
AZ	1	8,972	\$927
AZ	2	13,987	\$492
AZ	3	10,361	\$3,835
AZ	4	10,159	\$409
AZ	5	10,929	\$536
AZ	6	19,810	\$688
AZ	7	18,127	\$1,506
AZ	8	10,308	\$691
AZ	9	22,357	\$1,825
CA	1	12,963	\$344
CA	2	16,929	\$706
CA	3	11,207	\$1,527
CA	4	12,272	\$21,650
CA	5	14,495	\$1,694
CA	6	18,610	\$11,263
CA	7	13,142	\$7,748
CA	8	7,561	\$1,308
CA	9	10,981	\$6,181
CA	10	12,899	\$15,689
CA	11	16,585	\$1,456
CA	12	30,666	\$2,089
CA	13	16,907	\$313
CA	14	39,454	\$1,305
CA	15	17,162	\$2,455
CA	16	11,733	\$887
CA	17	23,038	\$2,744
CA	18	18,801	\$3,163
CA	19	10,371	\$727
CA	20	13,571	\$1,437

State	District	Employment	Mail Industry Revenue (\$ Millions)
CA	21	6,312	\$597
CA	22	12,783	\$1,011
CA	23	9,793	\$887
CA	24	15,708	\$1,346
CA	25	11,725	\$4,092
CA	26	17,231	\$3,615
CA	27	13,322	\$644
CA	28	18,826	\$699
CA	29	11,049	\$971
CA	30	19,882	\$1,336
CA	31	11,737	\$1,256
CA	32	15,639	\$1,800
CA	33	27,134	\$863
CA	34	20,167	\$734
CA	35	13,953	\$1,322
CA	36	11,450	\$1,168
CA	37	16,355	\$3,193
CA	38	18,961	\$2,121
CA	39	16,308	\$873
CA	40	13,761	\$1,176
CA	41	10,744	\$758
CA	42	9,929	\$779
CA	43	19,412	\$1,113
CA	44	10,464	\$5,783
CA	45	20,423	\$1,191
CA	46	16,707	\$2,871
CA	47	14,028	\$2,324
CA	48	20,116	\$1,066
CA	49	15,285	\$6,779
CA	50	12,268	\$1,059
CA	51	12,542	\$941
CA	52	26,770	\$1,698
CA	53	12,344	\$1,422
CO	1	25,489	\$4,209
CO	2	23,513	\$1,233
CO	3	16,626	\$1,414
CO	4	15,169	\$1,912
CO	5	18,922	\$2,094
CO	6	17,703	\$1,916
CO	7	18,145	\$779
CT	1	21,993	\$1,019
CT	2	16,358	\$618
CT	3	19,520	\$2,236
CT	4	24,870	\$4,894

State	District	Employment	Mail Industry Revenue (\$ Millions)
HI	1	15,597	\$400
HI	2	8,658	\$313
IA	1	19,438	\$458
IA	2	21,016	\$766
IA	3	20,435	\$1,492
IA	4	18,336	\$4,758
ID	1	14,735	\$2,084
ID	2	17,088	\$2,911
IL	1	10,617	\$2,054
IL	2	10,327	\$3,006
IL	3	12,566	\$1,162
IL	4	8,621	\$463
IL	5	21,349	\$18,070
IL	6	21,027	\$1,730
IL	7	41,520	\$4,925
IL	8	29,407	\$1,643
IL	9	14,402	\$635
IL	10	25,340	\$3,138
IL	11	16,610	\$659
IL	12	14,527	\$530
IL	13	16,850	\$540
IL	14	13,702	\$532
IL	15	13,728	\$2,450
IL	16	16,245	\$867
IL	17	14,026	\$2,263
IL	18	16,625	\$1,049
IN	1	15,080	\$2,289
IN	2	16,300	\$1,108
IN	3	20,082	\$3,205
IN	4	15,626	\$963
IN	5	20,981	\$764
IN	6	13,945	\$1,116
IN	7	17,680	\$933
IN	8	15,358	\$997
IN	9	16,077	\$677
KS	1	15,734	\$435
KS	2	17,409	\$694
KS	3	24,539	\$1,136
KS	4	16,766	\$615
KY	1	14,641	\$530
KY	2	16,417	\$759
KY	3	52,430	\$901
KY	4	15,211	\$1,432
KY	5	9,890	\$633

State	District	Employment	Mail Industry Revenue (\$ Millions)
CT	5	19,836	\$5,528
DC	00	32,319	\$965
DE	00	23,506	\$777
FL	1	18,838	\$1,328
FL	2	15,909	\$769
FL	3	11,020	\$966
FL	4	36,121	\$670
FL	5	18,445	\$1,143
FL	6	14,011	\$1,287
FL	7	16,536	\$1,095
FL	8	15,483	\$1,519
FL	9	13,305	\$488
FL	10	18,155	\$764
FL	11	11,977	\$2,631
FL	12	11,946	\$1,676
FL	13	22,001	\$1,194
FL	14	29,383	\$1,622
FL	15	14,331	\$2,189
FL	16	17,379	\$1,346
FL	17	9,998	\$1,133
FL	18	15,241	\$612
FL	19	21,223	\$1,258
FL	20	15,068	\$1,225
FL	21	13,044	\$1,242
FL	22	35,009	\$2,841
FL	23	20,901	\$1,253
FL	24	15,743	\$1,454
FL	25	22,480	\$2,385
FL	26	11,599	\$870
FL	27	19,336	\$596
GA	1	13,759	\$400
GA	2	12,590	\$1,097
GA	3	13,881	\$1,209
GA	4	11,439	\$9,721
GA	5	33,854	\$14,040
GA	6	35,697	\$1,845
GA	7	24,185	\$1,595
GA	8	11,341	\$526
GA	9	12,773	\$1,393
GA	10	8,936	\$807
GA	11	18,849	\$2,232
GA	12	14,834	\$654
GA	13	12,253	\$1,596
GA	14	10,707	\$1,373

State	District	Employment	Mail Industry Revenue (\$ Millions)
KY	6	16,700	\$3,328
LA	1	19,097	\$1,443
LA	2	18,982	\$2,130
LA	3	16,045	\$39,927
LA	4	14,053	\$1,946
LA	5	13,539	\$5,058
LA	6	18,305	\$5,333
MA	1	16,595	\$881
MA	2	16,723	\$7,151
MA	3	16,177	\$998
MA	4	21,721	\$963
MA	5	22,374	\$1,383
MA	6	22,488	\$959
MA	7	19,277	\$1,032
MA	8	25,751	\$1,384
MA	9	15,470	\$692
MD	1	14,017	\$889
MD	2	21,314	\$835
MD	3	18,291	\$1,193
MD	4	12,023	\$11,282
MD	5	14,250	\$784
MD	6	24,675	\$897
MD	7	13,558	\$560
MD	8	15,057	\$514
ME	1	19,609	\$2,130
ME	2	13,175	\$626
MI	1	15,998	\$647
MI	2	20,807	\$887
MI	3	14,498	\$1,489
MI	4	14,304	\$539
MI	5	15,555	\$878
MI	6	13,903	\$970
MI	7	12,704	\$896
MI	8	14,168	\$2,216
MI	9	16,379	\$3,399
MI	10	13,821	\$1,861
MI	11	27,519	\$72,093
MI	12	21,617	\$606
MI	13	9,478	\$2,608
MI	14	16,038	\$2,728
MN	1	18,833	\$4,232
MN	2	21,142	\$13,559
MN	3	29,779	\$2,335
MN	4	20,147	\$1,012

State	District	Employment	Mail Industry Revenue (\$ Millions)
MN	5	31,759	\$3,764
MN	6	13,229	\$900
MN	7	15,697	\$1,054
MN	8	13,867	\$459
MO	1	25,862	\$1,391
MO	2	24,575	\$1,273
MO	3	13,798	\$606
MO	4	13,179	\$491
MO	5	20,152	\$1,247
MO	6	14,196	\$1,173
MO	7	19,600	\$548
MO	8	13,070	\$888
MS	1	14,268	\$1,273
MS	2	11,940	\$667
MS	3	16,098	\$844
MS	4	14,296	\$632
MT	00	23,267	\$1,018
NC	1	14,357	\$9,404
NC	2	12,776	\$749
NC	3	12,738	\$1,303
NC	4	23,727	\$5,075
NC	5	15,111	\$649
NC	6	17,421	\$2,616
NC	7	10,917	\$1,219
NC	8	11,096	\$1,704
NC	9	17,791	\$6,018
NC	10	18,322	\$2,763
NC	11	13,400	\$1,126
NC	12	26,967	\$1,516
NC	13	14,505	\$1,207
ND	00	20,414	\$11,249
NE	1	12,827	\$1,102
NE	2	21,098	\$7,245
NE	3	18,082	\$1,642
NH	1	18,337	\$12,309
NH	2	18,308	\$5,402
NJ	1	15,175	\$2,759
NJ	2	15,935	\$2,517
NJ	3	18,400	\$14,682
NJ	4	18,467	\$2,636
NJ	5	21,237	\$1,160
NJ	6	34,042	\$1,132
NJ	7	19,360	\$846
NJ	8	19,487	\$2,968

State	District	Employment	Mail Industry Revenue (\$ Millions)
NJ	9	26,091	\$1,046
NJ	10	11,202	\$503
NJ	11	42,693	\$1,311
NJ	12	18,408	\$763
NM	1	15,309	\$1,712
NM	2	8,935	\$4,744
NM	3	12,243	\$1,616
NV	1	13,600	\$462
NV	2	18,293	\$396
NV	3	15,514	\$914
NV	4	8,258	\$1,354
NY	1	14,790	\$1,431
NY	2	19,183	\$9,312
NY	3	23,041	\$4,728
NY	4	19,608	\$37,745
NY	5	8,333	\$350
NY	6	7,734	\$1,361
NY	7	8,462	\$996
NY	8	12,360	\$938
NY	9	5,440	\$8,767
NY	10	46,006	\$3,995
NY	11	8,070	\$551
NY	12	97,215	\$16,491
NY	13	5,234	\$418
NY	14	6,765	\$964
NY	15	6,141	\$511
NY	16	10,294	\$933
NY	17	26,520	\$936
NY	18	13,870	\$605
NY	19	9,915	\$1,236
NY	20	21,426	\$54,021
NY	21	12,933	\$1,028
NY	22	13,387	\$19,995
NY	23	15,319	\$2,437
NY	24	15,069	\$1,457
NY	25	16,265	\$9,197
NY	26	19,890	\$887
NY	27	14,176	\$4,691
OH	1	21,894	\$2,162
OH	2	17,853	\$1,703
OH	3	32,346	\$1,405
OH	4	13,287	\$8,584
OH	5	32,632	\$1,741
OH	6	10,503	\$4,225

State	District	Employment	Mail Industry Revenue (\$ Millions)
OH	7	13,843	\$1,154
OH	8	18,792	\$1,700
OH	9	15,251	\$1,992
OH	10	23,513	\$1,289
OH	11	20,819	\$2,342
OH	12	19,429	\$1,578
OH	13	15,457	\$2,200
OH	14	21,613	\$3,298
OH	15	23,060	\$1,098
OH	16	20,207	\$1,723
OK	1	21,306	\$1,391
OK	2	9,045	\$2,809
OK	3	11,328	\$3,089
OK	4	12,944	\$1,087
OK	5	20,254	\$1,403
OR	1	22,290	\$2,646
OR	2	15,439	\$1,243
OR	3	20,526	\$9,322
OR	4	17,493	\$646
OR	5	15,446	\$4,465
PA	1	13,953	\$780
PA	2	14,839	\$799
PA	3	13,106	\$2,136
PA	4	18,658	\$980
PA	5	15,642	\$3,929
PA	6	25,397	\$3,167
PA	7	15,194	\$663
PA	8	18,406	\$1,016
PA	9	13,484	\$643
PA	10	12,250	\$6,219
PA	11	16,126	\$993
PA	12	15,910	\$764
PA	13	23,869	\$767
PA	14	22,410	\$735
PA	15	16,970	\$1,207
PA	16	17,414	\$717
PA	17	17,026	\$441
PA	18	22,392	\$605
RI	1	11,066	\$742
RI	2	12,693	\$764
SC	1	14,072	\$645
SC	2	14,429	\$586
SC	3	10,589	\$505
SC	4	19,306	\$1,244

State	District	Employment	Mail Industry Revenue (\$ Millions)
SC	5	9,663	\$23,092
SC	6	14,002	\$587
SC	7	14,795	\$5,180
SD	00	19,559	\$673
TN	1	14,390	\$2,453
TN	2	17,226	\$14,691
TN	3	15,540	\$6,417
TN	4	12,777	\$11,275
TN	5	24,112	\$595
TN	6	11,967	\$780
TN	7	13,320	\$1,250
TN	8	22,662	\$2,317
TN	9	27,638	\$3,455
TX	1	15,708	\$3,119
TX	2	19,568	\$1,573
TX	3	25,866	\$688
TX	4	13,833	\$6,982
TX	5	12,215	\$1,202
TX	6	14,844	\$933
TX	7	25,591	\$2,027
TX	8	11,458	\$411
TX	9	17,812	\$2,626
TX	10	17,636	\$1,036
TX	11	12,698	\$814
TX	12	19,123	\$933
TX	13	11,859	\$973
TX	14	13,798	\$336
TX	15	9,899	\$1,712
TX	16	17,173	\$28,338
TX	17	14,190	\$16,404
TX	18	19,349	\$881
TX	19	14,209	\$370
TX	20	13,727	\$605
TX	21	17,524	\$8,646
TX	22	13,414	\$3,737
TX	23	8,182	\$4,363
TX	24	42,501	\$4,503
TX	25	11,421	\$668
TX	26	13,086	\$953
TX	27	12,251	\$1,158
TX	28	11,222	\$316
TX	29	14,774	\$856
TX	30	20,797	\$714
TX	31	11,976	\$2,900

State	District	Employment	Mail Industry Revenue (\$ Millions)
TX	32	19,339	\$2,119
TX	33	14,413	\$678
TX	34	8,802	\$2,434
TX	35	14,881	\$1,045
TX	36	11,076	\$7,396
UT	1	13,205	\$839
UT	2	19,797	\$1,056
UT	3	13,801	\$1,408
UT	4	15,101	\$737
VA	1	13,886	\$1,772
VA	2	18,499	\$1,064
VA	3	16,342	\$2,885
VA	4	16,377	\$999
VA	5	12,326	\$16,494
VA	6	21,939	\$1,092
VA	7	20,635	\$637
VA	8	23,462	\$481
VA	9	13,754	\$596
VA	10	21,894	\$991
VA	11	21,564	\$66,904
VT	00	17,617	\$72,204
WA	1	14,554	\$15,117
WA	2	15,110	\$2,303
WA	3	12,479	\$741
WA	4	10,422	\$12,843
WA	5	15,808	\$14,045
WA	6	13,704	\$3,329
WA	7	32,022	\$22,697
WA	8	20,041	\$612
WA	9	22,369	\$1,126
WA	10	12,767	\$2,033
WI	1	17,671	\$1,617
WI	2	21,895	\$4,319
WI	3	23,033	\$381
WI	4	14,599	\$799
WI	5	27,341	\$2,143
WI	6	21,249	\$2,186
WI	7	17,144	\$762
WI	8	21,412	\$894
WV	1	12,661	\$487
WV	2	11,917	\$623
WV	3	8,387	\$635
WY	00	13,013	\$1,132

APPENDIX II: METHODOLOGY SUPPLEMENT

THE BLS OCCUPATIONAL EMPLOYMENT SURVEY (OES) DATASET

For the purpose of analyzing the mail industry, the project principally employed the 2014 dataset from the Bureau of Labor Statistics' (BLS) Occupational Employment Survey (OES) program.

The Occupational Employment Survey (OES) is a semi-annual employment survey of a sample of approximately 200,000 American business establishments. BLS draws its establishment sample from the Quarterly Census of Employment and Wages, a frame containing roughly seven million such establishments. The data collected by the OES primarily comprises counts of employees and average wages reported according to 800 predefined detail-level job categories known as "Standard Occupational Classifications" (SOCs) together with the industry category and geography of the employing establishment.

OES results by establishment for employee counts and average wages are reported in a publicly available downloadable database that compiles results of the six most recent surveys. Thus, each year's dataset summarizes approximately 1.2 million responses. The 800 detail-level SOCs are reported according to five group levels (levels of increasing aggregation from detail, broad, minor, major to cross-industry totals). All levels of occupation (except the cross-industry occupational totals) are reported for the most granular industry category level possible up to the six-digit level, consistent with statistical validity and maintaining respondent confidentiality. The entire dataset is analyzable for all 800 SOCs for several hundreds of industry classifications (NAICS industry titles and classification codes) at levels of aggregation ranging from 2 through 4 digits. In its final form, the database we analyzed provided us with over 100,000 records (rows) and over a dozen fields (columns) at the national level alone.